

## PRELIMINARY ENERGY AUDIT FORM

(See Instructions on Page 2)

1. UNIT

2. OPFAC

3. Check one and follow arrow to instructions:

- Energy Using Facility Summary ☐ → Omit Items 8 - 13  
Individual Building Audit ☐ → Complete All Items  
Incomplete Building Audit ☐ → Omit Item 15; Fill in only the metered portions of Item 14

4. Degree Days: Heating  
Cooling Climatic Zone

5. Check One: Coast Guard Owned ☐  
Leased ☐

6. Building Name(s)/Number(s)

7. Floor Area (B) GSF

8. Year of Construction

9. Building Category

10. Number of Floors

11. No. of Hours Operated/Week

12. Normal Occupancy Level

13. Major Energy Using Systems:

### ENERGY SOURCES

No. of Systems/1000's SF Served

SYSTEM

DESCRIPTION

Heating

Cooling

Ventilation

Lighting

Hot water

Power

Process

Other

ELEC.

OIL

NAT. GAS

PROPANE

14. Annual Metered Energy Use:

Energy Source	Units	FY- Consumption	Conversion Factor	BTUs	Annual Cost	Unit Cost
Electricity	1 KWH		X	=		
Fuel Oil	1 Gal		X	=		
Nat. Gas			X	=		
Propane			X	=		

15. ENERGY USE LEVEL(A/B)

TOTAL (A)

16. COMMENTS

17. PREPARED BY:

PHONE (Include A/C)

DATE

## INSTRUCTIONS FOR THE PRELIMINARY ENERGY AUDIT FORM

**A. An Individual Building Audit** is completed for all leased (except from GSA) or Coast Guard owned buildings with 1,000 or more GSF of floor area. These buildings must be individually metered for all energy sources.

**B. An Incomplete Building Audit** is completed for buildings mentioned above which are not individually metered for all energy sources.

**C. An Energy Using Facility Summary** is completed for each group of buildings sharing a common site, common energy sources, and generally master metered for at least one energy source. Only one command can be responsible for building maintenance and engineering support. This summary shall be attached to the Incomplete Building Audits for which it supplies supplementary energy consumption instructions.

Instructions for numbered items on the front are:

2. OPFAC of command responsible for maintenance and engineering support (e.g. Support Center New York rather than Station New York, TRACEN Governors Island, etc.)

4. Take data for nearest station in Engineering Weather Data, NAVFAC P-89, Climatic zones are:

	Heating Degree Days (P-89, Chapter 1)	Cooling Degree Days (P-89, Chapter 5)	Zone
1	More than 7,000	Less than 2,000	
2	5,500-7,000	Less than 2,000	
3	4,000-5,500	Less than 2,000	
4	2,000-4,000	Less than 2,000	
5	0-2,000	Less than 2,000	
6	0-2,000	More than 2,000	
7	2,000-4,000	More than 2,000	

6. Identify building by its local name (and number). List all Incomplete Buildings associated with an Energy Using Facility Summary.

7. Gross Square Feet of floor area (GSF) is the sum of all occupied (heated or cooled) floors, basements, mezzanines, etc., measured as the outside building dimensions.

8. List the year that the major portion of the structure was constructed (i.e., the major portion the floor area).

9. List the building's category code number and letter. Numbers are the GSA categories in the Real Property Record. Letters designate CG subcategories. For multi-use buildings, (e.g. Barracks/Admin/Ops) choose the code with the largest floor area in the building. Explain other used in COMMENTS.

Code	GSA Category	Coast Guard Subcategory	Examples
10	Office		Admin Bldg, Recruit Offices
21	Hospital		In-patient care only
23	School		Class Room, Training Lab
29	Other		Out-Patient Clinic, Library, Chapel
30	Institutional		Types not covered below explain in <u>COMMENTS</u>
30-A	Housing	Barracks	
30-B	Housing	Detached	Single Family Housing
30-C	Housing	Attached	Rowhouse, Townhouse, Duplex, Apartment
40	Storage		Warehouse, Shed, Paint Locker, Vehicle or Boat Garage (no maintenance)
50	Industrial		Manufacture of new ships, boats, electronic equipment, etc.
60	Service		Types not covered below explain in <u>COMMENTS</u>
60-A	Service	Repair Shop	Shops for maintenance or repair work, Sandblast, Paint Spray, Boathouse, Carpenter Shop, ERS, Motor Pool, Public Works
60-B	Service	Hanger	
60-C	Service	Commercial	Exchange, Commissary, Small Stores, Liquor Locker, Laundry

60-D Service Community Recreation, Bowling Alley, Community Activity, Gym, Pool

60-E Service Food Serv. Galley, Mess Hall LORAN Timer/Xmtr Bldg., COMMSTA

60-F Service Electronic Operations RADSTA, VTS, Computer Bldg.

60-G Service Other Operations Lookout, Lighthouse, Fire House Guard House Bldg. for basic or applied research

70 R & D Any other type of bldg., explain in COMMENTS.

80 Other Boiler Room, Power House, Sewage Treatment Plant

10. Number of floors that are occupied.

11. The average number of hours in building is used during a normal week. Explain unusual usage (e.g., monthly Reserve weekend usage) under COMMENTS.

12. Number of persons usually occupying the building during normal hours of operation.

13. Briefly describe systems in each category, giving site or capacities where appropriate (e.g., hot water boiler, 2.5 Million BTU/hr, baseboard heaters). Power Systems are elevators, escalators, small computers, etc. Process Systems include industrial machines, communications equipment, large computers, etc. Other Systems include refrigeration or humidification equipment.

In the table to the right, enter the number of systems served by each energy source and the square footage served by each source.

14. For each source of energy that is metered, list the units of measure and quantity consumed FY-1978. For an Energy Using Facility Summary, report all energy supplied to the entire facility. For a Building Audit, report quantities of energy that are measured at the building and indicate master metering for the others (e.g., Fuel Oil - 8,500 gal; Electricity - master metered). For an Individual

Energy Source	Units	Convert to BTU
All Fuel Oils:	1 Gal	X 138,700
#1, #2, #6, JP-5, Kerosene		
Natural Gas	1 CF	X 1,031
	100 CF (CCF)	103,100
	1,000 CF (MCF)	X1,031,000
	1 Therm	X 100,000
Propane	1 Gal	95,500
	1 Pound	22,520
	1 CF	3,632
Butane	1 Gal	95,500
	1 Pound	19,730
	1 CF	3,036
Steam (15 psig)	1 Pound	1,164

16. COMMENTS. Describe known energy problems, planned retrofit projects, special conditions, historical designation, unusual occupancy, HVAC controls, master metering arrangement, utility rate structure (electrical demand or power factor charge), cutter or boat shore ties, building architecture and orientation, and any other factors that affect energy use in the facility/building. Attach a copy of a typical recent utility bill for each utility. Use additional sheets if necessary.

17. Name and phone number of person preparing the preliminary Energy Audit.